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NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
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NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,

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=> s dna vaccine
L1 4747 DNA VACCINE

=> s immunostimulatory sequence
L2 215 IMMUNOSTIMULATORY SEQUENCE

=> s cpq
L3 16514 CPG

=> s immun?
2 FILES SEARCHED...
L4 3712247 IMMUN?

=> s l3 and l4
L5 3245 L3 AND L4

=> s vaccine
L6 215563 VACCINE

=> s l5 and l6
L7 721 L5 AND L6

=> s clinical
L8 2359429 CLINICAL

=> s clinic?
L9 2676128 CLINIC?

=> s l7 and l9
L10 83 L7 AND L9

=> s review
L11 2373795 REVIEW

=> s l10 and l11
L12 28 L10 AND L11

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13 17 DUP REM L12 (11 DUPLICATES REMOVED)

=> d ti so 1-17

L13 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
T1 Medicinal chemistry and therapeutic potential of CpG DNA.
SO Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.

L13 ANSWER 2 OF 17 MEDLINE DUPLICATE 2
T1 DNA-based approaches to the treatment of allergies.
SO Curr Opin Mol Ther, (2002 Feb) 4 (1) 64-71.
Journal code: 100891485. ISSN: 1464-8431.

L13 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants
SO Current Pharmaceutical Design (2001), 7(16), 1641-1667
CODEN: CPDEFP; ISSN: 1381-6128

L13 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Novel cancer vaccines
SO Expert Opinion on Therapeutic Patents (2001), 11(6), 937-950
CODEN: EOTPEG; ISSN: 1354-3776

L13 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI DNA vaccine
SO Rinsho Byori (2001), 49(7), 669-672
CODEN: RBYOAI; ISSN: 0047-1860

L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Improving DNA vaccines targeting viral infection
SO Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526

L13 ANSWER 7 OF 17 MEDLINE DUPLICATE 3
TI Nucleic acid vaccines: tasks and tactics.
SO IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
Journal code: 8611087. ISSN: 0257-277X.

L13 ANSWER 8 OF 17 MEDLINE DUPLICATE 4
TI The search for novel adjuvants for early life vaccinations: can "danger" motifs show us the way?
SO ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS, (2001) 49 (3) 209-15.
Ref: 60
Journal code: 0114365. ISSN: 0004-069X.

L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI From bugs to drugs: therapeutic immunomodulation with oligodeoxynucleotides containing CpG sequences from bacterial DNA
SO Antisense & Nucleic Acid Drug Development (2001), 11(3), 181-188
CODEN: ANADF5; ISSN: 1087-2906

L13 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI The role of CpG in DNA vaccines
SO Immunostimulatory DNA Sequences (2001), 125-132. Editor(s): Raz, Eval.
Publisher: Springer-Verlag, Berlin, Germany.
CODEN: 69AUN8

L13 ANSWER 11 OF 17 MEDLINE
TI DNA-based immunotherapeutics for the treatment of allergic disease.
SO IMMUNOLOGICAL REVIEWS, (2001 Feb) 179 102-18. Ref: 72
Journal code: 7702118. ISSN: 0105-2896.

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI New trends in immunotherapy to prevent atopic diseases
SO Trends in Pharmacological Sciences (2001), 22(2), 84-90
CODEN: TPHSDY; ISSN: 0165-6147

L13 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Potentiation of the activity of mucosal vaccines by immunological adjuvants
SO Romanian Archives of Microbiology and Immunology (2000), 59(3), 157-210
CODEN: RAMIE5; ISSN: 1222-3891

L13 ANSWER 14 OF 17 MEDLINE DUPLICATE 5
TI The role of CpG in DNA vaccines.
SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.

L13 ANSWER 15 OF 17 MEDLINE DUPLICATE 6
TI DNA and RNA-based vaccines: principles, progress and prospects.
SO VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142
Journal code: 8406899. ISSN: 0264-410X.

L13 ANSWER 16 OF 17 MEDLINE DUPLICATE 7
TI How BCG led to the discovery of immunostimulatory DNA.
SO JAPANESE JOURNAL OF INFECTIOUS DISEASES, (1999 Feb) 52 (1) 1-11. Ref: 91
Journal code: 100893704. ISSN: 1344-6304.

L13 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI The CpG motif: implications for clinical immunology
SO BioDrugs (1998), 10(5), 341-346
CODEN: BIDRF4; ISSN: 1173-8804

=> d ibib ab 17,15,12,9,7,6,4,3,1

L13 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:766008 CAPLUS
DOCUMENT NUMBER: 130:166817
TITLE: The CpG motif: implications for clinical immunology
AUTHOR(S): Krieg, Arthur M.
CORPORATE SOURCE: Veterans Affairs Medical Center, Iowa City,
Interdisciplinary Graduate Program in Immunology and Department of Internal Medicine, University of Iowa, and CpG ImmunoPharmaceuticals, Inc., Iowa City, IA, USA

SOURCE: BioDrugs (1998), 10(5), 341-346
CODEN: BIDRF4; ISSN: 1173-8804

PUBLISHER: Adis International Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 57 refs. The immune system appears to have evolved a mechanism to detect prokaryotic nucleic acids based on their content of unmethylated CpG dinucleotides in particular base contexts. This response promotes the activation of antigen-specific B cells and the secretion of T helper-1-like cytokines. Preliminary animal studies indicate the potential therapeutic utility of CpG DNA as a vaccine adjuvant, and for the immunotherapy of cancer and allergic diseases. On the other hand, CpG DNA can also serve as a trigger for the sepsis syndrome and may have a pathogenic role in certain inflammatory immune-mediated diseases.

REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 15 OF 17 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 2000048098 MEDLINE
DOCUMENT NUMBER: 20048098 PubMed ID: 10580187
TITLE: DNA and RNA-based vaccines: principles, progress and prospects.
AUTHOR: Leitner W W; Ying H; Restifo N P
CORPORATE SOURCE: National Cancer Institute, National Institutes of Health,
Building 10, Bethesda, MD 20892-1502, USA.
wolfgang_leitner@nih.gov
SOURCE: VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142

Journal code: 8406899. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200001
ENTRY DATE: Entered STN: 20000131
Last Updated on STN: 20000131
Entered Medline: 20000118

AB DNA vaccines were introduced less than a decade ago but have already been applied to a wide range of infectious and malignant diseases.

Here we review the current understanding of the mechanisms underlying the activities of these new vaccines. We focus on recent strategies designed to enhance their function including the use of

immunostimulatory (CpG) sequences, dendritic cells (DC), co-stimulatory molecules and cytokine- and chemokine-adjuvants.

Although

genetic vaccines have been significantly improved, they may not be sufficiently immunogenic for the therapeutic vaccination of patients with infectious diseases or cancer in clinical trials.

One promising approach aimed at dramatically increasing the immunogenicity of genetic vaccines involves making them 'self-replicating'. This can be accomplished by using a gene encoding

RNA

replicase, a polypeptide derived from alphaviruses, such as Sindbis virus.

Replicase-containing RNA vectors are significantly more immunogenic than conventional plasmids, immunizing mice at doses as low as 0.1 microg of nucleic acid injected once intramuscularly. Cells transfected with 'self-replicating' vectors

briefly

produce large amounts of antigen before undergoing apoptotic death.

This

death is a likely result of requisite double-stranded (ds) RNA intermediates, which also have been shown to super-activate DC.

Thus, the

enhanced immunogenicity of 'self-replicating' genetic vaccines may be a result of the production of pro-inflammatory dsRNA, which mimics an RNA-virus infection of host cells.

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:97866 CAPLUS

DOCUMENT NUMBER: 134:309343

TITLE: New trends in immunotherapy to prevent atopic diseases

AUTHOR(S): Walker, C.; Zuany-Amorim, C.

CORPORATE SOURCE: Novartis Horsham Research Centre, Novartis

Pharmaceutical Ltd, West Sussex, RH12 5AB, UK

SOURCE: Trends in Pharmacological Sciences (2001), 22(2), 84-90

CODEN: TPHSDY; ISSN: 0165-6147

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review and discussion with 58 refs. Advances in the understanding of the mol. and cellular immunol. mechanism of atopy have led to the development of new therapies for allergic diseases.

However, only a few new drugs have reached the clinic and none provides long-term immunomodulatory effects.

Immunotherapy, through its capacity to produce a long-term, antigen-specific, protective immune response, is the only etiol. treatment that offers the possibility of preventing or even curing

atopic

diseases. However, the potential severe side-effects assocd. with conventional immunotherapy using whole allergen ext. limits its widespread use. Thus, novel strategies to minimize the side-effects

and

improve the efficacy of immunotherapy are of considerable interest in the treatment of atopic diseases. Promising animal and human

studies, using approaches such as peptide immunotherapy, DNA vaccination, CpG oligonucleotides and mycobacterial vaccines, suggest that it might be possible to prevent or cure atopic diseases in the future.

REFERENCE COUNT: 58 THERE ARE 58 CITED

REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:506326 CAPLUS

DOCUMENT NUMBER: 135:240516

TITLE: From bugs to drugs: therapeutic immunomodulation with oligodeoxynucleotides containing CpG sequences from bacterial DNA

AUTHOR(S): Krieg, Arthur M.

CORPORATE SOURCE: Department of Veterans Affairs Medical Center, Iowa City, IA, 52246, USA

SOURCE: Antisense & Nucleic Acid Drug Development (2001),

11(3), 181-188

CODEN: ANADF5; ISSN: 1087-2906

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 96 refs. Several types of immune cells possess pattern recognition receptors (PRR) that can distinguish prokaryotic DNA from vertebrate DNA by detecting unmethylated

CpG

dinucleotides in particular base contexts (CpG motifs).

Bacterial DNA or synthetic oligodeoxynucleotides contg. these CpG motifs activate both innate and acquired immune responses that have evolved to protect against intracellular infections. These T helper

1 (Th1)-like immune responses include activation of B cells, dendritic cells, macrophages, and natural killer (NK) cells. CpG DNA-induced immune activation can protect against infection either alone or in combination with a vaccine and is effective in the immunotherapy of allergic diseases and cancer. Human clin. trials using such CpG DNA are currently underway.

REFERENCE COUNT: 96 THERE ARE 96 CITED

REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE
RE FORMAT

L13 ANSWER 7 OF 17 MEDLINE DUPLICATE 3

ACCESSION NUMBER: 2002088869 MEDLINE

DOCUMENT NUMBER: 21591127 PubMed ID: 11817323

TITLE: Nucleic acid vaccines: tasks and tactics.

AUTHOR: McKenzie B S; Corbett A J; Brady J L; Dyer C M; Strugnell R

A; Kent S J; Kramer D R; Boyle J S; Lew A M

CORPORATE SOURCE: The Walter & Eliza Hall Institute of Medical Research,

Royal Melbourne Hospital, Parkville, Australia.

SOURCE: IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191

Journal code: 8611087. ISSN: 0257-277X.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

(REVIEW, ACADEMIC)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200206

ENTRY DATE: Entered STN: 20020131

Last Updated on STN: 20020604

Entered Medline: 20020603

AB There are no adequate vaccines against some of the new or reemerged infectious scourges such as HIV and TB. They may require strong

and enduring cell-mediated immunity to be elicited. This is quite a task, as the only known basis of protection by current commercial

vaccines is antibody. As DNA or RNA vaccines may induce both cell-mediated and humoral immunity, great interest has been shown in them. However, doubt remains whether their efficacy will suffice

for their clinical realization. We look at the various tactics to increase the potency of nucleic acid vaccines and divided them broadly under those affecting delivery and those affecting immune induction. For delivery, we have considered ways of improving uptake and the use of bacterial, replicon or viral vectors.

For immune induction, we considered aspects of immunostimulatory CpG motifs, coinjection of cytokines or costimulators and alterations of the antigen, its cellular localization and its anatomical localization including the use of ligand-targeting to lymphoid tissue. We also thought that mucosal application of DNA deserved a separate section. In this review, we have taken the liberty to discuss these enhancement methods, whenever possible, in the context of the underlying mechanisms that might argue for or against these strategies.

L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:258834 CAPLUS

DOCUMENT NUMBER: 135:316991

TITLE: Improving DNA vaccines targeting viral infection

AUTHOR(S): Sin, Jeong-Im; Weiner, David B.

CORPORATE SOURCE: Department of Pathology and Laboratory Medicine,

University of Pennsylvania, Philadelphia, PA, 19104, USA

SOURCE: Intervirology (2001), Volume Date 2000, 43(4-6), 233-246

CODEN: IVRYAK; ISSN: 0300-5526

PUBLISHER: S. Karger AG

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. DNA vaccination techniques have been recently under intensive investigation both preclinically and in human studies aimed at

impacting viral infection. Collectively, DNA vaccines expressing viral antigens induce both antigen-specific humoral and cellular immune responses which in model systems are capable of impacting viral infection. However, in clin. settings the potency of this approach is still under investigation. Efficacy is improved in specific circumstances through the addn. of immunomodulatory mols. including cytokines as plasmid cassettes or

through modification of the nos. of specific CpG sequences present in the backbone. Furthermore, combined vaccination schemes have

been an important research focus for generating enhanced immunogenicity against viral infections. The ultimate utility of these approaches to prevent viral infection will require more work. However, improvements in the potency and focus of DNA vaccines present us with new opportunities for both basic research into protective

immunity as well as novel strategies for immune therapy and prophylaxis.

REFERENCE COUNT: 137 THERE ARE 137 CITED

REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE

FORMAT

L13 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:431120 CAPLUS

DOCUMENT NUMBER: 135:194070

TITLE: Novel cancer vaccines

AUTHOR(S): Chen, Wangxue

CORPORATE SOURCE: Wakefield Gastroenterology Research Institute,

Wakefield Hospital, Wellington South, N. Z.

SOURCE: Expert Opinion on Therapeutic Patents (2001), 11(6),

937-950

CODEN: EOTPEG; ISSN: 1354-3776

PUBLISHER: Ashley Publications Ltd.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB The intellectual property literature concerning novel cancer vaccine strategies for the period of 1998 and 2000 is reviewed with 27 refs. and many cited patents. Nearly 400 citations have been identified and the majority of the citations described herein involve the

identification of new tumor assocd. antigens and novel strategies of cancer vaccine formulations. Significant progress has been made during this period in the identification of new tumor assocd. antigens (TAAs), the refinement of gene and DNA vaccination techniques, the development of dendritic cell-based immunotherapy and the use of cytokines and CpG-contg. oligodeoxynucleotides as vaccine adjuvants. In addn., encouraging results have been obtained from vaccination studies of animal tumor models and a large no.

of novel cancer vaccines are currently under development or at early stages of clin. evaluation.

REFERENCE COUNT: 230 THERE ARE 230 CITED

REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE

IN THE RE

FORMAT

L13 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:776043 CAPLUS

DOCUMENT NUMBER: 136:84268

TITLE: Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants

AUTHOR(S): Leitner, W. W.; Hammerl, P.; Thalhamer, J.

CORPORATE SOURCE: Surgery Branch, National Cancer Institute, NIH,

Bethesda, MD, 20892, USA

SOURCE: Current Pharmaceutical Design (2001), 7(16), 1641-1667

CODEN: CPDEFP; ISSN: 1381-6128

PUBLISHER: Bentham Science Publishers

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Despite some interesting pilot expts. more than a century ago, nucleic acid has only recently been added to the list of agents used for the prevention and therapy of cancer. Two distinct features of nucleic acids are used for this purpose: in DNA and RNA vaccines, genetic information for pathogen- or tumor-derived antigens is delivered to the host who then produces the encoded antigen

and initiates an immune response. In DNA adjuvants, immunostimulatory sequences (CpG motifs) present in DNA of bacterial origin are used. Such sequences are delivered in the form of

oligonucleotides or within the sequence of DNA vaccine. In addn., CpG oligonucleotides by themselves have successfully been used to stimulate the immune system in an antigen-independent manner for the treatment of exptl. tumors. DNA and RNA vaccines for the treatment and prevention of cancer and other diseases suffer from

two some shortcomings: insufficient immunogenicity and - in the case of RNA - low stability. A variety of strategies are being explored

to improve the efficacy of nucleic acid vaccines (genetic vaccines) esp. for self-antigens in the case of cancer. Among the most recent improvements are self-replicating RNA vaccines and replicase-based DNA-vaccines in which antigen expression is under the control of an alphaviral replicase. Despite highly promising

results in many animal tumor models the efficacy of nucleic acid vaccines and adjuvants in the clinic remains to be seen.

REFERENCE COUNT: 204 THERE ARE 204 CITED

REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE

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FORMAT

L13 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002149770 MEDLINE
DOCUMENT NUMBER: 21874627 PubMed ID: 11879771
TITLE: Medicinal chemistry and therapeutic potential of

CpG DNA
AUTHOR: Agrawal Sudhir, Kandimalla Ekambar R
CORPORATE SOURCE: Hybridon, Inc., 345 Vassar Street,
Cambridge, MA 02137,
USA.. sagrawal@hybridon.com
SOURCE: Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200207
ENTRY DATE: Entered STN: 20020308
Last Updated on STN: 20020718
Entered Medline: 20020717

AB The observation that oligodeoxynucleotides containing CpG dinucleotides (CpG DNA) exhibit several immunological effects has led to their use as therapeutic agents and adjuvants for various diseases. Several CpG DNA drug candidates are currently being evaluated, either as monotherapies or as adjuvants (with vaccines, antibodies, antigens and allergens), in preclinical and clinical trials against cancers, viral and bacterial infections, allergies and asthma. Knowledge gained from studies of the medicinal chemistry of CpG DNA has provided a basis for designing a second generation of CpG DNA agents with desirable cytokine-inducing and potent immunomodulatory activity. This article reviews recent progress in understanding the effects of CpG DNA, the medicinal chemistry of CpG DNA, and its possible therapeutic applications.

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FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 09:57:10 ON 06 SEP 2002

L1 4747 S DNA VACCINE
L2 215 S IMMUNOSTIMULATORY SEQUENCE
L3 16514 S CPG
L4 3712247 S IMMUN?
L5 3245 S L3 AND L4
L6 215563 S VACCINE
L7 721 S L5 AND L6
L8 2359429 S CLINICAL
L9 2676128 S CLINIC?
L10 83 S L7 AND L9
L11 2373795 S REVIEW
L12 28 S L10 AND L11
L13 17 DUP REM L12 (11 DUPLICATES REMOVED)

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NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
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NEWS 16 Aug 08 CANCERLIT reload
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NEWS 18 Aug 08 NTIS has been reloaded and enhanced
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NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,

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L4 ANSWER 5 OF 14 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2001167117 MEDLINE
DOCUMENT NUMBER: 21091914 PubMed ID: 11164505
TITLE: Non-specific antiviral activity of antisense molecules
targeted to the E1 region of human papillomavirus.
AUTHOR: Lewis E J; Agrawal S; Bishop J; Chadwick J;
Cristensen N D;
Cuthill S; Dunford P; Field A K; Francis J; Gibson V;
Greenham A K; Kelly F; Kilkushie R; Kreider J W; Mills J

S;
 Mulqueen M; Roberts N A; Roberts P; Szymkowski D E
 CORPORATE SOURCE: Roche Discovery Welwyn, Broadwater
 Road, Herts. AL73AY,
 Welwyn Garden City, UK.. jon.lewis@roche.com
 SOURCE: ANTIVIRAL RESEARCH, (2000 Dec) 48 (3) 187-
 96.
 Journal code: 8109699. ISSN: 0166-3542.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200106
 ENTRY DATE: Entered STN: 20010618
 Last Updated on STN: 20010618
 Entered Medline: 20010614
 AB Antisense phosphorothioate oligonucleotides (ODN1 0x5 OMe)
 directed
 against the E1 start region of human papillomavirus 11 (HPV11) can
 inhibit
 papillomavirus induced growth of implanted human foreskin in a
 mouse
 xenograft model. Administration of a mismatch control
 oligonucleotide
 (ODN9 0x5 OMe), in which guanine was replaced with adenine in
 the same
 model, had no effect on papilloma induced growth. However, the
 apparent antiviral activity of ODN1 0x5 OMe was also shown in a
 lethal
 mouse cytomegalovirus (CMV) model, in which the oligonucleotides
 are not
 expected to have antisense activity. To understand the mechanisms of
 action of these oligonucleotides, a mismatch oligonucleotide (ODN61
 0x5
 OMe) was prepared which retained the CpG motifs of ODN1 0x5
 OMe.
 This was tested in the mouse xenograft model and shown to have
 moderate
 inhibitory activity. As a definitive experiment, a comparison was
 made
 between the efficacy of the active oligonucleotide ODN1 0x5 OMe
 against
 two papilloma viruses HPV11 and HPV40. Both these viruses cause
 benign genital warts, but differ by four bases in their E1 sequence
 that
 was the target for ODN1 0x5 OMe. Papillomavirus induced growth
 in the
 mouse xenograft model was inhibited by ODN1 0x5 OMe in both
 cases,
 suggesting that oligonucleotide molecules have a non-specific
 antiviral
 activity that is not directly related to their antisense sequence.

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON
 06 SEP 2002

L1 28577 S PAPILOMA
 L2 16514 S CPG
 L3 27 S L1 AND L2
 L4 14 DUP REM L3 (13 DUPLICATES REMOVED)

=> lesion

LESION IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter
 "HELP COMMANDS" at an arrow prompt (=>).

=> s lesion

L5 689344 LESION

=> s l2 and l5

L6 322 L2 AND L5

=> s virus

L7 1234235 VIRUS

=> s ?virus or ?viral

L8 1403845 ?VIRUS OR ?VIRAL

=> s l6 and l8

L9 17 L6 AND L8

=> dup rem l9

PROCESSING COMPLETED FOR L9

L10 10 DUP REM L9 (7 DUPLICATES REMOVED)

=> d ti so 1-10

L10 ANSWER 1 OF 10 MEDLINE DUPLICATE 1

TI DNA containing CpG motifs induces angiogenesis.

SO PROCEEDINGS OF THE NATIONAL ACADEMY OF
 SCIENCES OF THE UNITED STATES OF
 AMERICA, (2002 Jun 25) 99 (13) 8944-9.

Journal code: 7505876. ISSN: 0027-8424.

L10 ANSWER 2 OF 10 MEDLINE

DUPLICATE 2

TI Coincident inactivation of 14-3-3sigma and p16INK4a is an early
 event in

vulval squamous neoplasia.

SO ONCOGENE, (2002 Mar 14) 21 (12) 1876-81.

Journal code: 8711562. ISSN: 0950-9232.

L10 ANSWER 3 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL
 ABSTRACTS INC.

TI Expression of toll-like receptors in human atherosclerotic lesions
 : A possible pathway for plaque activation.

SO Circulation, (March 12, 2002) Vol. 105, No. 10, pp. 1158-1161.

<http://circ.ahajournals.org/>. print.

ISSN: 0009-7322.

L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Liposome-CAT complexes induce development of a non-
 inflammatory neointimal

lesion in rabbit carotid arteries

SO International Journal of Angiology (2002), 11(2), 67-72

CODEN: IJAGE5; ISSN: 1061-1711

L10 ANSWER 5 OF 10 MEDLINE

DUPLICATE 3

TI Topical immunomodulators--progress towards treating
 inflammation,

infection, and cancer.

SO Lancet Infect Dis, (2001 Oct) 1 (3) 189-98. Ref: 85

Journal code: 101130150. ISSN: 1473-3099.

L10 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI E6 and E7 fusion proteins for vaccination against human papilloma
 virus

SO PCT Int. Appl., 62 pp.

CODEN: PIXXD2

L10 ANSWER 7 OF 10 MEDLINE

DUPLICATE 4

TI 1995 Deichmann Lecture--p53 tumor suppressor gene: at the
 crossroads of

molecular carcinogenesis, molecular epidemiology and cancer risk
 assessment.

SO TOXICOLOGY LETTERS, (1995 Dec) 82-83 1-7. Ref: 43

Journal code: 7709027. ISSN: 0378-4274.

L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2002 ACS

TI Spontaneous mutations in lacI-containing .lambda. lysogens derived
 from

transgenic mice: the observed patterns differ in liver and spleen

SO Mutation Research (1994), 311(1), 57-67

CODEN: MUREAV; ISSN: 0027-5107

L10 ANSWER 9 OF 10 MEDLINE
 TI Methylation in eucaryotes influences the repair of G/T and A/C DNA basepair mismatches.
 SO CELL BIOPHYSICS, (1989 Aug-Oct) 15 (1-2) 29-40.
 Journal code: 8002185. ISSN: 0163-4992.

L10 ANSWER 10 OF 10 MEDLINE DUPLICATE 5
 TI A specific mismatch repair event protects mammalian cells from loss of 5-methylcytosine.
 SO CELL, (1987 Sep 11) 50 (6) 945-50.
 Journal code: 0413066. ISSN: 0092-8674.

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002

L1 28577 S PAPILOMA
 L2 16514 S CPG
 L3 27 S L1 AND L2
 L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
 L5 689344 S LESION
 L6 322 S L2 AND L5
 L7 1234235 S VIRUS
 L8 1403845 S ?VIRUS OR ?VIRAL
 L9 17 S L6 AND L8
 L10 10 DUP REM L9 (7 DUPLICATES REMOVED)

=> s vaccin?
 L11 284657 VACCIN?

=> s l2 and l11
 L12 799 L2 AND L11

=> s without antigen
 L13 498 WITHOUT ANTIGEN

=> s without(3a)antigen
 L14 4125 WITHOUT(3A) ANTIGEN

=> s l12 and l14
 L15 7 L12 AND L14

=> dupr rem l15
 DUPR IS NOT A RECOGNIZED COMMAND
 The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> dup rem l15
 PROCESSING COMPLETED FOR L15
 L16 3 DUP REM L15 (4 DUPLICATES REMOVED)

=> d ti so 1-3

L16 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
 TI Endothelial cell-derived growth factor expands murine hematopoietic progenitor cells and DC precursor cells in vivo and increases the protective response to autologous tumor vaccination.
 SO Blood, (November 16, 2001) Vol. 98, No. 11 Part 1, pp. 701a.
<http://www.bloodjournal.org/>. print.
 Meeting Info.: 43rd Annual Meeting of the American Society of Hematology,
 Part 1 Orlando, Florida, USA December 07-11, 2001
 ISSN: 0006-4971.

L16 ANSWER 2 OF 3 MEDLINE DUPLICATE 1

TI CpG oligodeoxynucleotide vaccination suppresses IgE induction but may fail to down-regulate ongoing IgE responses in mice.
 SO INTERNATIONAL IMMUNOLOGY, (2001 Jan) 13 (1) 3-11.
 Journal code: 8916182. ISSN: 0953-8178.

L16 ANSWER 3 OF 3 MEDLINE DUPLICATE 2
 TI Immunostimulatory DNA as an adjuvant in vaccination against Leishmania major.
 SO INFECTION AND IMMUNITY, (1999 Aug) 67 (8) 3719-26.
 Journal code: 0246127. ISSN: 0019-9567.

=> d ibib ab 3

L16 ANSWER 3 OF 3 MEDLINE DUPLICATE 2
 ACCESSION NUMBER: 1999346151 MEDLINE
 DOCUMENT NUMBER: 99346151 PubMed ID: 10417129
 TITLE: Immunostimulatory DNA as an adjuvant in vaccination against Leishmania major.
 AUTHOR: Stacey K J; Blackwell J M
 CORPORATE SOURCE: Cambridge Institute for Medical Research, Addenbrooke's Hospital, Cambridge CB2 2XY, United Kingdom.
 K.Stacey@cmcb.uq.edu.au
 SOURCE: INFECTION AND IMMUNITY, (1999 Aug) 67 (8) 3719-26.
 Journal code: 0246127. ISSN: 0019-9567.

PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199908
 ENTRY DATE: Entered STN: 19990820
 Last Updated on STN: 19990820
 Entered Medline: 19990812
 AB Oligodeoxynucleotides (ODN) which contain immunostimulatory CG motifs (CpG ODN) can promote T helper 1 (Th1) responses, an adjuvant activity that is desirable for vaccination against leishmaniasis. To test this, susceptible BALB/c mice were vaccinated with soluble leishmanial antigen (SLA) with or without CpG ODN as adjuvant and then challenged with Leishmania major metacyclic promastigotes. CpG ODN alone gave partial protection when injected up to 5 weeks prior to infection, and longer if the ODN was bound to alum. To demonstrate an antigen-specific adjuvant effect, a minimum of 6 weeks between vaccination and infection was required. Subcutaneous administration of SLA alone, SLA plus alum, or SLA plus non-CpG ODN resulted in exacerbated disease compared to unvaccinated mice.

Mice receiving SLA plus CpG ODN showed a highly significant ($P < 5 \times 10^{-5}$) reduction in swelling compared to SLA-vaccinated mice and enhanced survival compared to unvaccinated mice. The modulation of the response to SLA by CpG ODN was maintained even when mice were infected 6 months after vaccination. CpG ODN was not an effective adjuvant for antibody production in response to SLA unless given together with alum, when it promoted production of immunoglobulin G2a, a Th1-associated isotype. Our results suggest that with an appropriate antigen, CpG ODN would provide a stable, cost-effective adjuvant for use in vaccination against leishmaniasis.

=> d is
 'IS' IS NOT A VALID FORMAT
 In a multifile environment, a format can only be used if it is valid in at least one of the files. Refer to file specific help messages or the STNGUIDE file for information on formats available in individual files.

REENTER DISPLAY FORMAT FOR ALL FILES
(FILEDEFAULT):end

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON
06 SEP 2002

L1 28577 S PAPILOMA
L2 16514 S CPG
L3 27 S L1 AND L2
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
L5 689344 S LESION
L6 322 S L2 AND L5
L7 1234235 S VIRUS
L8 1403845 S ?VIRUS OR ?VIRAL
L9 17 S L6 AND L8
L10 10 DUP REM L9 (7 DUPLICATES REMOVED)
L11 284657 S VACCIN?
L12 799 S L2 AND L11
L13 498 S WITHOUT ANTIGEN
L14 4125 S WITHOUT(3A)ANTIGEN
L15 7 S L12 AND L14
L16 3 DUP REM L15 (4 DUPLICATES REMOVED)

=> s l1 and l14

L17 7 L1 AND L14

=> dup rem l17

PROCESSING COMPLETED FOR L17

L18 5 DUP REM L17 (2 DUPLICATES REMOVED)

=> d ti so 1-5

L18 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Methods of preventing and treating viral infections and using
immunomodulatory polynucleotide sequences
SO PCT Int. Appl., 65 pp.
CODEN: PIXXD2

L18 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL
ABSTRACTS INC.DUPLICATE 1
TI Growth stimulation of tumor-specific cytotoxic T lymphocytes on
concanavalin A-immobilized carrier beads.
SO Cytotechnology, (1998) Vol. 26, No. 1, pp. 13-21.
ISSN: 0920-9069.

L18 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI A vaccine conjugate of "ISCAR" immunocarrier and peptide
epitopes of the
E7 cervical cancer-associated protein of human papillomavirus type
16
elicits specific Th1- and Th2-type responses in immunized mice in
the
absence of oil-based adjuvants
SO Clinical and Experimental Immunology (1995), 101(2), 265-71
CODEN: CEXIAL; ISSN: 0009-9104

L18 ANSWER 4 OF 5 MEDLINE DUPLICATE 2
TI Histopathological development of equine cutaneous papillomas.
SO JOURNAL OF COMPARATIVE PATHOLOGY, (1990 May) 102
(4) 393-403.
Journal code: 0102444. ISSN: 0021-9975.

L18 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Detection of human papillomavirus DNA in anogenital exophytic
lesions by
in situ hybridization to paraffin sections
SO Acta Pathol. Jpn. (1988), 38(9), 1131-9
CODEN: APJAAG; ISSN: 0001-6632

=> d ibib ab 1,4

L18 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:693074 CAPLUS

DOCUMENT NUMBER: 135:267226

TITLE: Methods of preventing and treating viral infections
and using immunomodulatory polynucleotide sequences

INVENTOR(S): Van Nest, Gary

PATENT ASSIGNEE(S): Dynavax Technologies Corporation, USA

SOURCE: PCT Int. Appl., 65 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068077	A2	20010920	WO 2001-US7840	
20010312				
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2002028784	A1	20020307	US 2001-802685	20010309
PRIORITY APPLN. INFO.:			US 2000-188302P	P 20000310
			US 2001-802685	A 20010309
AB	The invention provides methods of suppression, prevention, and/or treatment of infection by viruses. A polynucleotide comprising an immunostimulatory sequence (an "ISS") is administered to an individual who is at risk of being exposed to, has been exposed to or is infected with a virus. The ISS-contg. polynucleotide is administered without any antigens of the virus. Administration of the ISS-contg. polynucleotide results in reduced incidence and/or severity of one or more symptoms of virus infection.			

L18 ANSWER 4 OF 5 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 90308034 MEDLINE
DOCUMENT NUMBER: 90308034 PubMed ID: 2164051
TITLE: Histopathological development of equine cutaneous
papillomas.
AUTHOR: Hamada M; Oyamada T; Yoshikawa H; Yoshikawa T; Itakura C
CORPORATE SOURCE: Department of Comparative Pathology,
Faculty of Veterinary
Medicine, Hokkaido University, Sapporo, Japan.
SOURCE: JOURNAL OF COMPARATIVE PATHOLOGY,
(1990 May) 102 (4)
393-403.
Journal code: 0102444. ISSN: 0021-9975.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199008
ENTRY DATE: Entered STN: 19900921
Last Updated on STN: 19900921
Entered Medline: 19900815
AB The histopathological development of equine cutaneous
papillomas

was studied in 78 warts naturally occurring in 50 one to 3-year-old Thoroughbred or Arab horses and in 54 warts experimentally induced in three 2-year-old Thoroughbreds. Lesions in the natural cases were categorized into three phases, growth, development and regression. Main lesions of the growing phase were marked hyperplasia of the basal cells and mild to moderate acanthosis, hyper- and parakeratosis with a few intranuclear inclusion bodies (IIB) which were positive with anti-bovine papillomavirus serum. In the developing phase, there was prominent acanthosis with cellular swelling and fusion, and marked hyper- and parakeratosis. Many IIB were also present in swollen or degenerative prickly cells and granular cells, with a high degree of parakeratosis in keratinocytes. In the regressing phase, epidermal layers were almost normal with only slight hyperplastic change. However, there was rete peg proliferation downward into the dermis with moderate proliferation of fibroblasts and collagen fibres. In addition, in 10 spontaneous and one experimental wart, the lesions were fibropapillomas and this has never been described in horses previously. It was concluded that papillomas were initiated by basal cell hyperplasia without viral antigen production, with formation of acanthosis and hyper- and parakeratosis with IIB production. These findings were confirmed by examination of the experimental cases on the basis of the gross diameter of the warts.

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002

L1 28577 S PAPILOMA
 L2 16514 S CPG
 L3 27 S L1 AND L2
 L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
 L5 689344 S LESION
 L6 322 S L2 AND L5
 L7 1234235 S VIRUS
 L8 1403845 S ?VIRUS OR ?VIRAL
 L9 17 S L6 AND L8
 L10 10 DUP REM L9 (7 DUPLICATES REMOVED)
 L11 284657 S VACCIN?
 L12 799 S L2 AND L11
 L13 498 S WITHOUT ANTIGEN
 L14 4125 S WITHOUT(3A)ANTIGEN
 L15 7 S L12 AND L14
 L16 3 DUP REM L15 (4 DUPLICATES REMOVED)
 L17 7 S L1 AND L14
 L18 5 DUP REM L17 (2 DUPLICATES REMOVED)

=> s l1 and l12

L19 1 L1 AND L12

=> d ti so

L19 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
 TI E6 and E7 fusion proteins for vaccination against human papilloma virus
 SO PCT Int. Appl., 62 pp.
 CODEN: PIXXD2

=> s l2 and l8

L20 1300 L2 AND L8

=> s l1 l and l20

L21 263 L11 AND L20

=> s clinic?

L22 2676128 CLINIC?

=> s l21 and l22

L23 35 L21 AND L22

=> d ti so 1-35

L23 ANSWER 1 OF 35 MEDLINE

TI Established human papillomavirus type 16-expressing tumors are effectively eradicated following vaccination with long peptides.
 SO JOURNAL OF IMMUNOLOGY, (2002 Jul 1) 169 (1) 350-8.
 Journal code: 2985117R. ISSN: 0022-1767.

L23 ANSWER 2 OF 35 MEDLINE

TI Medicinal chemistry and therapeutic potential of CpG DNA.
 SO Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
 Journal code: 100966035. ISSN: 1471-4914.

L23 ANSWER 3 OF 35 MEDLINE

TI Topical immunomodulators--progress towards treating inflammation, infection, and cancer.
 SO Lancet Infect Dis, (2001 Oct) 1 (3) 189-98. Ref: 85
 Journal code: 101130150. ISSN: 1473-3099.

L23 ANSWER 4 OF 35 MEDLINE

TI Nucleic acid vaccines: tasks and tactics.
 SO IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
 Journal code: 8611087. ISSN: 0257-277X.

L23 ANSWER 5 OF 35 MEDLINE

TI Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants.
 SO CURRENT PHARMACEUTICAL DESIGN, (2001 Nov) 7 (16) 1641-67. Ref: 204
 Journal code: 9602487. ISSN: 1381-6128.

L23 ANSWER 6 OF 35 MEDLINE

TI Gene combination raises broad human immunodeficiency virus-specific cytotoxicity.
 SO HUMAN GENE THERAPY, (2001 Sep 1) 12 (13) 1623-37.
 Journal code: 9008950. ISSN: 1043-0342.

L23 ANSWER 7 OF 35 MEDLINE

TI DNA vaccine.
 SO RINSHO BYORI. JAPANESE JOURNAL OF CLINICAL PATHOLOGY, (2001 Jul) 49 (7) 669-72. Ref: 10
 Journal code: 2984781R. ISSN: 0047-1860.

L23 ANSWER 8 OF 35 MEDLINE

TI Improving DNA vaccines targeting viral infection.
 SO INTERVIROLOGY, (2000) 43 (4-6) 233-46. Ref: 137
 Journal code: 0364265. ISSN: 0300-5526.

L23 ANSWER 9 OF 35 MEDLINE

TI Human papillomavirus virus-like particles are efficient oral immunogens when coadministered with Escherichia coli heat-labile enterotoxin mutant R192G or CpG DNA.
 SO JOURNAL OF VIROLOGY, (2001 May) 75 (10) 4752-60.
 Journal code: 0113724. ISSN: 0022-538X.

L23 ANSWER 10 OF 35 MEDLINE

TI The role of CpG in DNA vaccines.
 SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
 Journal code: 7910384. ISSN: 0172-6641.

L23 ANSWER 11 OF 35 MEDLINE

TI How BCG led to the discovery of immunostimulatory DNA.

SO JAPANESE JOURNAL OF INFECTIOUS DISEASES, (1999 Feb)
52 (1) 1-11. Ref: 91

Journal code: 100893704. ISSN: 1344-6304.

L23 ANSWER 12 OF 35 MEDLINE

TI DNA and RNA-based vaccines: principles, progress and prospects.

SO VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142

Journal code: 8406899. ISSN: 0264-410X.

L23 ANSWER 13 OF 35 MEDLINE

TI CpG DNA and LPS induce distinct patterns of activation in human monocytes.

SO GENE THERAPY, (1999 May) 6 (5) 893-903.

Journal code: 9421525. ISSN: 0969-7128.

L23 ANSWER 14 OF 35 MEDLINE

TI Sequence motifs in adenoviral DNA block immune activation by stimulatory CpG motifs.

SO PROCEEDINGS OF THE NATIONAL ACADEMY OF

SCIENCES OF THE UNITED STATES OF AMERICA, (1998 Oct 13) 95 (21) 12631-6.

Journal code: 7505876. ISSN: 0027-8424.

L23 ANSWER 15 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Established human papillomavirus type 16-expressing tumors are effectively eradicated following vaccination with long peptides.

SO Journal of Immunology, (July 1, 2002) Vol. 169, No. 1, pp. 350-358.

<http://www.jimmunol.org/>. print.

ISSN: 0022-1767.

L23 ANSWER 16 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Medicinal chemistry and therapeutic potential of CpG DNA.

SO Trends in Molecular Medicine, (March, 2002) Vol. 8, No. 3, pp. 114-121.

<http://tmm.trends.com>. print.

ISSN: 1471-4914.

L23 ANSWER 17 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Nucleic acid vaccines: Tasks and tactics.

SO Immunologic Research, (2001) Vol. 24, No. 3, pp. 225-244. print.

ISSN: 0257-277X.

L23 ANSWER 18 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Human papillomavirus virus-like particles are

efficient oral immunogens when coadministered with Escherichia coli

heat-labile enterotoxin mutant R192G or CpG DNA.

SO Journal of Virology, (May, 2001) Vol. 75, No. 10, pp. 4752-4760. print.

ISSN: 0022-538X.

L23 ANSWER 19 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Improving DNA vaccines targeting viral infection.

SO Intervirology, (July December, 2000) Vol. 43, No. 4-6, pp. 233-246. print.

ISSN: 0300-5526.

L23 ANSWER 20 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI DNA and RNA-based vaccines: Principles, progress and prospects.

SO Vaccine, (Dec. 10, 1999) Vol. 18, No. 9-10, pp. 765-777.

ISSN: 0264-410X.

L23 ANSWER 21 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI CpG DNA and LPS induce distinct patterns of activation in human monocytes.

SO Gene Therapy, (May, 1999) Vol. 6, No. 5, pp. 893-903.

ISSN: 0969-7128.

L23 ANSWER 22 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

TI Sequence motifs in adenoviral DNA block immune activation by stimulatory CpG motifs.

SO Proceedings of the National Academy of Sciences of the United States of

America, (Oct. 13, 1998) Vol. 95, No. 21, pp. 12631-12636.

ISSN: 0027-8424.

L23 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Topical immunomodulators-progress towards treating inflammation, infection, and cancer

SO Lancet Infectious Diseases (2001), 1(3), 189-198

CODEN: LIDABP; ISSN: 1473-3099

L23 ANSWER 24 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Established human papillomavirus type 16-expressing tumors are effectively eradicated following vaccination with long peptides

SO Journal of Immunology (2002), 169(1), 350-358

CODEN: JOIMA3; ISSN: 0022-1767

L23 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Medicinal chemistry and therapeutic potential of CpG DNA

SO Trends in Molecular Medicine (2002), 8(3), 114-121

CODEN: TMMRCY; ISSN: 1471-4914

L23 ANSWER 26 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Nucleic acid vaccines: tasks and tactics

SO Immunologic Research (2001), 24(3), 225-244

CODEN: IMRSEB; ISSN: 0257-277X

L23 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants

SO Current Pharmaceutical Design (2001), 7(16), 1641-1667

CODEN: CPDEFP; ISSN: 1381-6128

L23 ANSWER 28 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI DNA vaccine

SO Rinsho Byori (2001), 49(7), 669-672

CODEN: RBYOAL; ISSN: 0047-1860

L23 ANSWER 29 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Improving DNA vaccines targeting viral infection

SO Intervirology (2001), Volume Date 2000, 43(4-6), 233-246

CODEN: IVRYAK; ISSN: 0300-5526

L23 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI The role of CpG in DNA vaccines

SO Immunostimulatory DNA Sequences (2001), 125-132. Editor(s):

Raz, Eval.

Publisher: Springer-Verlag, Berlin, Germany.

CODEN: 69AUN8

L23 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI The role of CpG in DNA vaccines

SO Springer Seminars in Immunopathology (2000), 22(1-2), 125-132

CODEN: SSIMDV; ISSN: 0344-4325

L23 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI Stereoisomers of CpG oligonucleotides and related methods

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

L23 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI DNA and RNA-based vaccines: principles, progress and prospects

SO Vaccine (1999), 18(9-10), 765-777

CODEN: VACCDE; ISSN: 0264-410X

L23 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2002 ACS

TI CpG DNA and LPS induce distinct patterns of activation in human monocytes

SO Gene Therapy (1999), 6(5), 893-903
CODEN: GETHEC; ISSN: 0969-7128

L23 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Sequence motifs in adenoviral DNA block immune activation by stimulatory CpG motifs
SO Proceedings of the National Academy of Sciences of the United States of America (1998), 95(21), 12631-12636
CODEN: PNASA6; ISSN: 0027-8424

=> dup rem l23

PROCESSING COMPLETED FOR L23

L24 17 DUP REM L23 (18 DUPLICATES REMOVED)

=> d ti so 1-17

L24 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
TI Established human papillomavirus type 16-expressing tumors are effectively eradicated following vaccination with long peptides.
SO JOURNAL OF IMMUNOLOGY, (2002 Jul 1) 169 (1) 350-8.
Journal code: 2985117R. ISSN: 0022-1767.

L24 ANSWER 2 OF 17 MEDLINE DUPLICATE 2
TI Medicinal chemistry and therapeutic potential of CpG DNA.
SO Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.

L24 ANSWER 3 OF 17 MEDLINE DUPLICATE 3
TI Human papillomavirus virus-like particles are efficient oral immunogens when coadministered with Escherichia coli heat-labile enterotoxin mutant R192G or CpG DNA.
SO JOURNAL OF VIROLOGY, (2001 May) 75 (10) 4752-60.
Journal code: 0113724. ISSN: 0022-538X.

L24 ANSWER 4 OF 17 MEDLINE DUPLICATE 4
TI Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants.
SO CURRENT PHARMACEUTICAL DESIGN, (2001 Nov) 7 (16) 1641-67. Ref: 204
Journal code: 9602487. ISSN: 1381-6128.

L24 ANSWER 5 OF 17 MEDLINE
TI Gene combination raises broad human immunodeficiency virus-specific cytotoxicity.
SO HUMAN GENE THERAPY, (2001 Sep 1) 12 (13) 1623-37.
Journal code: 9008950. ISSN: 1043-0342.

L24 ANSWER 6 OF 17 MEDLINE DUPLICATE 5
TI DNA vaccine.
SO RINSHO BYORI. JAPANESE JOURNAL OF CLINICAL PATHOLOGY, (2001 Jul) 49 (7) 669-72. Ref: 10
Journal code: 2984781R. ISSN: 0047-1860.

L24 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Improving DNA vaccines targeting viral infection
SO Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526

L24 ANSWER 8 OF 17 MEDLINE DUPLICATE 6
TI Nucleic acid vaccines: tasks and tactics.
SO IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
Journal code: 8611087. ISSN: 0257-277X.

L24 ANSWER 9 OF 17 MEDLINE DUPLICATE 7
TI Topical immunomodulators--progress towards treating inflammation, infection, and cancer.
SO Lancet Infect Dis, (2001 Oct) 1 (3) 189-98. Ref: 85
Journal code: 101130150. ISSN: 1473-3099.

L24 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI The role of CpG in DNA vaccines
SO Immunostimulatory DNA Sequences (2001), 125-132. Editor(s): Raz, Eval.
Publisher: Springer-Verlag, Berlin, Germany.
CODEN: 69AUN8

L24 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Stereoisomers of CpG oligonucleotides and related methods
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2

L24 ANSWER 12 OF 17 MEDLINE DUPLICATE 8
TI Improving DNA vaccines targeting viral infection.
SO INTERVIROLOGY, (2000) 43 (4-6) 233-46. Ref: 137
Journal code: 0364265. ISSN: 0300-5526.

L24 ANSWER 13 OF 17 MEDLINE DUPLICATE 9
TI The role of CpG in DNA vaccines.
SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.

L24 ANSWER 14 OF 17 MEDLINE DUPLICATE 10
TI CpG DNA and LPS induce distinct patterns of activation in human monocytes.
SO GENE THERAPY, (1999 May) 6 (5) 893-903.
Journal code: 9421525. ISSN: 0969-7128.

L24 ANSWER 15 OF 17 MEDLINE DUPLICATE 11
TI DNA and RNA-based vaccines: principles, progress and prospects.
SO VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142
Journal code: 8406899. ISSN: 0264-410X.

L24 ANSWER 16 OF 17 MEDLINE
TI How BCG led to the discovery of immunostimulatory DNA.
SO JAPANESE JOURNAL OF INFECTIOUS DISEASES, (1999 Feb) 52 (1) 1-11. Ref: 91
Journal code: 100893704. ISSN: 1344-6304.

L24 ANSWER 17 OF 17 MEDLINE DUPLICATE 12
TI Sequence motifs in adenoviral DNA block immune activation by stimulatory CpG motifs.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1998 Oct 13) 95 (21) 12631-6.
Journal code: 7505876. ISSN: 0027-8424.

=> d ibib ab 13,12,10,7,4,1

L24 ANSWER 13 OF 17 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 2001084149 MEDLINE
DOCUMENT NUMBER: 20401104 PubMed ID: 10944807
TITLE: The role of CpG in DNA vaccines.
AUTHOR: McCluskie M J; Weeratna R D; Davis H L
CORPORATE SOURCE: Loeb Health Research Institute at the Ottawa Hospital, Canada.
SOURCE: SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010118
AB One of the most exciting developments in the field of vaccine

research in recent years has been DNA vaccines, with which immune responses are induced subsequent to the in vivo expression of antigen from directly introduced plasmid DNA. Strong immune responses have been demonstrated in a number of animal models against many viral, bacterial and parasitic pathogens, and several human clinical trials have been undertaken. The strong and long-lasting antigen-specific humoral (antibodies) and cell-mediated (T help, other cytokine functions and cytotoxic T cells) immune responses induced by DNA vaccines appear to be due to the sustained in vivo expression of antigen, efficient antigen presentation and the presence of stimulatory CpG motifs. These features are desirable for the development of prophylactic vaccines against numerous infectious agents. Furthermore, the strong cellular responses are also very desirable for the development of therapeutic DNA vaccines to treat chronic viral infections or cancer. Efforts are now focusing on understanding the mechanisms for the induction of these immune responses, which in turn should aid in the optimization of DNA vaccines. This review will focus on the role of CpG motifs in DNA vaccines.

L24 ANSWER 12 OF 17 MEDLINE DUPLICATE 8
 ACCESSION NUMBER: 2001394148 MEDLINE
 DOCUMENT NUMBER: 21150233 PubMed ID: 11251379
 TITLE: Improving DNA vaccines targeting viral infection.

AUTHOR: Sin J I; Weiner D B
 CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA 19104, USA.

SOURCE: INTERVIROLOGY, (2000) 43 (4-6) 233-46. Ref: 137

Journal code: 0364265. ISSN: 0300-5526.

PUB. COUNTRY: Switzerland
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 (REVIEW, TUTORIAL)

LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200107
 ENTRY DATE: Entered STN: 20010716
 Last Updated on STN: 20010716
 Entered Medline: 20010712

AB DNA vaccination techniques have been recently under intensive investigation both preclinically and in human studies aimed at impacting viral infection. Collectively, DNA vaccines expressing viral antigens induce both antigen-specific humoral and cellular immune responses which in model systems are capable of impacting viral infection. However, in clinical settings the potency of this approach is still under investigation. Efficacy is improved in specific circumstances through the addition of immunomodulatory molecules including cytokines as plasmid cassettes or through modification of the numbers of specific CpG sequences present in the backbone. Furthermore, combined vaccination schemes have been an important research focus for generating enhanced immunogenicity against viral infections. The ultimate utility of these approaches to prevent viral infection will require more work. However, improvements in the potency and focus of DNA vaccines present us with new opportunities for both basic research into protective immunity as well as novel strategies for immune therapy and prophylaxis.
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L24 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:35178 CAPLUS

DOCUMENT NUMBER: 135:120786
 TITLE: The role of CpG in DNA vaccines
 AUTHOR(S): McCluskie, Michael J.; Weeratna, Risini D.; Davis, Heather L.

CORPORATE SOURCE: Loeb Health Research Institute, Ottawa Hospital, Ottawa, K1Y 4E9, Can.

SOURCE: Immunostimulatory DNA Sequences (2001), 125-132.

Editor(s): Raz, Eval. Springer-Verlag: Berlin, Germany.
 CODEN: 69AUN8

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English
 AB A review with 63 refs. One of the most exciting developments in the field of vaccine research in recent years has been DNA vaccines, with which immune responses are induced subsequent to the in vivo expression of antigen from directly introduced plasmid DNA. Strong immune responses have been demonstrated in a no. of animal models against many viral, bacterial, and parasitic pathogens, and several human clin. trials have been undertaken. The strong and long-lasting antigen-specific humoral (antibodies) and cell-mediated (T help, other cytokine functions, and cytotoxic T cells) immune responses induced by DNA vaccines appear to be due to the sustained in vivo expression of antigen, efficient antigen presentation, and the presence of stimulatory CpG motifs. These features are desirable for the development of prophylactic vaccines against numerous infectious agents. Furthermore, the strong cellular responses are also very desirable for the development of therapeutic DNA vaccines to treat chronic viral infections or cancer. Efforts are now focusing on understanding the mechanisms for the induction of these immune responses, which in turn should aid in the optimization of DNA vaccines.

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 2001:258834 CAPLUS
 DOCUMENT NUMBER: 135:316991
 TITLE: Improving DNA vaccines targeting viral infection

AUTHOR(S): Sin, Jeong-Im; Weiner, David B.
 CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA, 19104, USA

SOURCE: Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
 CODEN: IVRYAK; ISSN: 0300-5526

PUBLISHER: S. Karger AG
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English

AB A review. DNA vaccination techniques have been recently under intensive investigation both preclinically and in human studies aimed at impacting viral infection. Collectively, DNA vaccines expressing viral antigens induce both antigen-specific humoral and cellular immune responses which in model systems are capable of impacting viral infection. However, in clin. settings the potency of this approach is still under investigation. Efficacy is improved in specific circumstances through the addn. of immunomodulatory

mols. including cytokines as plasmid cassettes or through modification of the nos. of specific CpG sequences present in the backbone. Furthermore, combined vaccination schemes have been an important research focus for generating enhanced immunogenicity against viral infections. The ultimate utility of these approaches to prevent viral infection will require more work. However, improvements in the potency and focus of DNA vaccines present us with new opportunities for both basic research into protective immunity as

well as novel strategies for immune therapy and prophylaxis.
 REFERENCE COUNT: 137 THERE ARE 137 CITED
 REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE
 IN THE RE
 FORMAT

L24 ANSWER 4 OF 17 MEDLINE DUPLICATE 4
 ACCESSION NUMBER: 2001514591 MEDLINE
 DOCUMENT NUMBER: 21446489 PubMed ID: 11562304
 TITLE: Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants.

AUTHOR: Leitner W W; Hammerl P; Thalhamer J
 CORPORATE SOURCE: Surgery Branch, National Cancer Institute, NIH, Bethesda,

MD 20892, USA.. Wolfgang_Leitner@nih.gov
 SOURCE: CURRENT PHARMACEUTICAL DESIGN, (2001 Nov) 7 (16) 1641-67.

Ref: 204
 Journal code: 9602487. ISSN: 1381-6128.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 (REVIEW, ACADEMIC)

LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200201
 ENTRY DATE: Entered STN: 20010920
 Last Updated on STN: 20020129
 Entered Medline: 20020128

AB Despite some interesting pilot experiments more than a century ago, nucleic acid has only recently been added to the list of agents used for the prevention and therapy of cancer. Two distinct features of nucleic acids are used for this purpose: in DNA and RNA vaccines, genetic information for pathogen- or tumor-derived antigens is delivered to the host who then produces the encoded antigen and initiates an immune response. In DNA adjuvants, immunostimulatory sequences (CpG motifs) present in DNA of bacterial origin are used. Such sequences are

delivered in the form of oligonucleotides or within the sequence of DNA vaccine. In addition, CpG oligonucleotides by themselves have successfully been used to stimulate the immune system in an antigen-independent manner for the treatment of experimental tumors. DNA and RNA vaccines for the treatment and prevention of cancer and other diseases suffer from two some shortcomings: insufficient immunogenicity and--in the case of RNA--low stability. A variety of strategies are being explored to improve the efficacy of nucleic acid vaccines (genetic vaccines) especially for self-antigens in the case of cancer. Among the most recent improvements are self-replicating RNA vaccines and replicase-based DNA-vaccines in which antigen expression is under the control of an alphaviral replicase. Despite highly promising results in many animal tumor models the efficacy of nucleic acid vaccines and adjuvants in the clinic remains to be seen.

L24 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
 ACCESSION NUMBER: 2002334121 MEDLINE
 DOCUMENT NUMBER: 22072208 PubMed ID: 12077264

TITLE: Established human papillomavirus type 16-expressing tumors are effectively eradicated following vaccination with long peptides.

AUTHOR: Zwaveling Sander; Ferreira Mota Sandra C; Nouta Jan;

Johnson Mark; Lipford Grayson B; Offringa Rienk; van der Burg Sjoerd H; Melief Cornelis J M

CORPORATE SOURCE: Department of Immunohematology and Blood Transfusion,

Leiden University Medical Center, Leiden, The Netherlands.

SOURCE: JOURNAL OF IMMUNOLOGY, (2002 Jul 1) 169 (1) 350-8.

Journal code: 2985117R. ISSN: 0022-1767.

PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English

FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals

ENTRY MONTH: 200208
 ENTRY DATE: Entered STN: 20020623
 Last Updated on STN: 20020823
 Entered Medline: 20020813

AB Peptide-based vaccines aimed at the induction of effective T cell responses against established cancers have so far only met with limited clinical success and clearly need to be improved. In a preclinical model of human papillomavirus (HPV)16-induced cervical cancer we show that prime-boost vaccinations with the HPV16-derived 35 amino-acid long peptide E7(43-77), containing both a CTL epitope and a Th epitope, resulted in the induction of far more robust E7-specific CD8(+) T cell responses than vaccinations with the minimal CTL epitope only. We demonstrate that two distinct mechanisms are responsible for this effect. First, vaccinations with the long peptide lead to the generation of E7-specific CD4(+) Th cells. The level of the induced E7-specific CD8(+) T cell response proved to be dependent on the interactions of these Th cells with professional APC. Second, we demonstrate that vaccination with the long peptide and dendritic cell-activating agents resulted in a superior induction of E7-specific CD8(+) T cells, even when T cell help was excluded. This suggests that, due to its size, the long peptide was preferably endocytosed, processed, and presented by professional APCs. Moreover, the efficacy of this superior HPV-specific T cell induction was demonstrated in therapeutic prime-boost vaccinations in which the long peptide admixed with the dendritic cell-activating adjuvant oligodeoxynucleotide-CpG resulted in the eradication of large, established HPV16-expressing tumors. Because the vaccine types used in this study are easy to prepare under good manufacturing practice conditions and are safe to administer to humans, these data provide important information for future clinical trials.

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(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002

L1 28577 S PAPILLOMA
 L2 16514 S CPG
 L3 27 S L1 AND L2
 L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
 L5 689344 S LESION
 L6 322 S L2 AND L5
 L7 1234235 S VIRUS

L8 1403845 S ?VIRUS OR ?VIRAL
 L9 17 S L6 AND L8
 L10 10 DUP REM L9 (7 DUPLICATES REMOVED)
 L11 284657 S VACCIN?
 L12 799 S L2 AND L11
 L13 498 S WITHOUT ANTIGEN
 L14 4125 S WITHOUT(3A)ANTIGEN
 L15 7 S L12 AND L14
 L16 3 DUP REM L15 (4 DUPLICATES REMOVED)
 L17 7 S L1 AND L14
 L18 5 DUP REM L17 (2 DUPLICATES REMOVED)
 L19 1 S L1 AND L12
 L20 1300 S L2 AND L8
 L21 263 S L11 AND L20
 L22 2676128 S CLINIC?
 L23 35 S L21 AND L22
 L24 17 DUP REM L23 (18 DUPLICATES REMOVED)

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CA SUBSCRIBER PRICE			-1.86 -1.86

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